Tailored SMS text message support to help smokers quit smoking

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Smoking and health

- Tobacco kills (nearly six million people per year)  
  WHO (2011)

- Smoking in pregnancy biggest preventable cause of pregnancy complications, infant ill health and death  
  Cnattingius (2004)

- Smoking in pregnancy considered a ‘teachable moment’ but tough group to help quit
The potential of SMS

- Potential public health benefits of SMS support due to:
  - High ownership of phones
  - High popularity of SMS
  - Low cost
  - Real time, asynchronous support

- However…
  - Reduced control of receipt
  - Limited character length
  - Intrusive?
  - Typically ‘once size fits all’ approach adopted
Tailoring: our approach

- Tailored self-help support for each person

- Compared to non-tailored materials, tailored are:
  - More likely to be read, remembered and perceived as personally relevant
  - Increase smoking cessation rates
    - Lancaster & Stead (2009)
MiQuit

- Tailored self-help support for pregnant smokers

- Automated programme tailored to 26 characteristics
  - 3-months of ‘push’ text messages (approx 80 texts)
    - Texts provided general encouragement, risk information, coping strategies, outcome expectancies, preparation advice etc.
  - Instant support ‘pull’ text message facility
    - HELP – if they are struggling not to smoke
    - SLIP – to prevent a slip turning into relapse
Have you set a quit date yet Julie?
Setting a date can help you to plan your quit &
Example text message

- High dependence
- Morning is the most difficult time

It’s the nicotine buzz to your brain that makes you want a cigarette when you first wake Sarah. So think of other ways to cope first thing. Say no till u break the link.
Example text message

- High dependence
  - Morning is the most difficult time

- Low dependence
  - Anger/frustration is the most difficult time

Cigs don’t have a hold on you yet Sarah. It’s habit that’s keeping you smoking, especially when you feel angry. Think of other ways to stay calm before the cigs do take control.
Evaluation of MiQuit

Objective
1. Assess feasibility of delivering MiQuit
2. Assess acceptability of MiQuit
3. Estimate the potential efficacy of MiQuit

Design
- Randomised controlled trial
- Pregnant smokers referred to team by midwives
- 207 participants recruited from 7 NHS Trusts (MiQuit arm N = 102, control N = 105)
- Follow up 3 months post-baseline
Evaluation of MiQuit: results

- **Feasibility**
  - 96% reported receiving the text message support

- **Acceptability**
  - 24% of treatment participants felt text-messages were annoying to some degree
  - 9% opted to discontinue text-messages

Naughton et al (in press) *Nicotine and Tobacco Research*. 
Evaluation of MiQuit: results

Odds ratio = 1.68 (95% CI 0.66 – 4.31)

Cotinine validated cessation rates at 3 months follow up

- Control arm: 7.8%
- MiQuit arm: 12.5%
Future work

Development work

- Collection of tailoring questions by text message
- Increasing user control over programme (e.g. content, frequency etc.)
- Increasing engagement (more interactive ‘distraction’ features, info unrelated to smoking etc.)
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